

REMARKS

Claims 16-52 remain in the application. Claims 1-15 were previously cancelled and claims 36, 37 and 41-52 were previously withdrawn.

Claims 16 and 26 are amended to more clearly state the claimed invention. No new matter is added by these amended, and after their entry, claims 16-35 and 38-40 are pending for consideration by the Examiner.

A. Rejections under 35 U.S.C. 112, first paragraph.

In the Office Action of October 3, 2005, claims 16-35 and 38-40 were rejected under 35 U.S.C. 112, first paragraph. This rejection is respectfully traversed.

The Office Action specifically objected to the "creating a nanoscale power" element of claims 16 and 26. In this Amendment, this limitation has been deleted and replaced with claim language that complies with 35 U.S.C. 112, first paragraph.

Specifically, independent claims 16 and 26 as amended are supported at least by the teachings at paragraphs [00126], [00122] through [00125], and [00097] through [00106] of Applicants' specification. Additional teachings relevant to claims are extensively taught in the incorporated patents.

More specifically, dopants, selection of appropriate valency, and the combining of the dopant to the lattice is taught in paragraph [00126].

Further, at least paragraph [00124] teaches that the commonly-owned U.S. Patent 5,788,738 can be utilized to produce nanopowders. For matter of record, the Applicants note that the detailed description of the '738 patent and examples 1 through 9 therein describe methods for preparing nanopowders from metal compounds. Similarly, commonly owned U.S. patent 5,987,997 teaches methods for producing nanoscale powders comprising three or more elements

from dopants and metal compounds. The current specification incorporates '738 and other relevant patents in paragraphs [00001] and [00002].

It is respectfully requested that since independent claims 16 and 26 as amended incorporate language used in the current specification, the rejection be withdrawn.

B. Rejections under 35 U.S.C. 112, second paragraph.

Claims 16-35 and 38-40 were also rejected under 35 U.S.C. 112, second paragraph. Claims 18 and 28 were rejected as being unclear. These rejections are respectfully traversed.

Dependent claims 18 and 28 as amended are supported at least by the teachings at paragraphs [00022] and [00075]. The "%" refer to number basis. For consistency, the claims are amended with language directly from the current specification.

Independent claims 16 and 26 are meant to be generic, and it is requested that these be read as such. As mentioned above, at least paragraph [00124] teaches that the commonly owned patent U.S. Patent 5,788,738 can be utilized to produce nanopowders. For matter of record, the Applicants note that the detailed description of the '738 patent and examples 1 through 9 therein describe methods for preparing nanopowders from metal compounds. Similarly, commonly owned U.S. patent 5,987,997 teaches methods for producing nanoscale powders from dopants and metal compounds. Paragraphs [00122] through [00126] of Applicants' specification teach many other methods. Since multiple methods are taught in the specification, independent claims 16 and 26 claim a method for combining dopants into the lattice of metal compounds, wherein the claim is limited to nanoscale powder form of compositions of matter with surprisingly unusual properties.

It is respectfully requested that given the amended claims that incorporate language used in the current specification that distinctly and particularly claims the invention, the rejection be withdrawn.

C. Rejections under Double Patenting Doctrine.

The Office Action further rejected claims 16-35 and 38-40 under the judicially created doctrine of obviousness-type double patenting over U.S. Patent Nos. 6,228,904; 6,531,704; and 6,855,426. The Office Action noted that a terminal disclaimer may be used to overcome this rejection. In response, Applicants' are filing a terminal disclaimer with this Amendment.

D. Rejections under 35 U.S.C. 102(b) under US 5,593,781.

Claims 16-35 and 38-40 were rejected under 35 U.S.C. 102(b) as being anticipated by the Nass patent ('781). This rejection is respectfully traversed.

'781 teaches a method of manufacturing surface-modified ceramic powders in the nanometer size range. '781 does not teach or offer any motivations for combining dopants into the lattice of a metal compound comprising compositions of matter as called for in the adding and producing elements of amended independent claims 16 and 26.

Thus, '781 does not teach a key requirement of the claimed invention, and It is respectfully requested that given the amended claims, the rejection of claims 16 and 26 be withdrawn. Claims 17-25, 27-35, and 38-40 depend from claims 16 and 26 and are believed allowable at least for the reasons provided for allowing these base claims.

E. Rejections under 35 U.S.C. 102(b) under US 5,590,387.

Claims 16-35 and 38-40 were also rejected under 35 U.S.C. 102(b) as being anticipated by the Schmidt patent ('387). This rejection is respectfully traversed.

'387 teaches a method for producing sintered bodies or coatings from metal or ceramic powder using a suspension of surface-modified nanoscale

metal or ceramic particles. '387 does not teach or offer any motivations for combining dopants into the lattice of a metal compound comprising compositions of matter as called for in independent claims 16 and 26. Thus, '387 does not teach a key requirement of the claimed invention, i.e., fails to teach each and every element of the claimed methods.

It is respectfully requested that given the amended claims, the rejection be withdrawn for independent claims 16 and 26 for the reasons provided. Claims 17-25, 27-35, and 38-40 depend from claims 16 and 26 and are believed allowable at least for the reasons provided for allowing these base claims.

F. Rejections under 35 U.S.C. 102(b) under US 5,882,779.

Claims 16-35 and 38-40 were rejected under 35 U.S.C. 102(b) as being anticipated by the Lawandy patent ('779). This rejection is respectfully traversed.

'779 teaches coating process and the use of a class of high efficiency materials as pixels to replace conventional phosphors in electrically and optically excited television displays, flat panel displays, and illumination sources in general. '779 also teaches certain semiconductor core materials which when coated with certain transition metals are expected to produce superior decay times. In an alternate embodiment, '779 teaches that the transition metals may be embedded in the matrix of semiconductor nanocrystals (Figure 1 and at Col. 4, lines 21-50). '779 coating processes and other discussions do not teach or offer any motivations for combining elements into the lattice of a metal compound comprising compositions of matter such that a three or more element compound results. Thus, '779 does not teach a key requirement of the claimed invention, i.e., fails at least to teach the adding and producing elements of independent claims 16 and 26.

It is respectfully requested that given the amended claims, the rejection be withdrawn. Claims 17-25, 27-35, and 38-40 depend from claims 16 and 26

and are believed allowable at least for the reasons provided for allowing these base claims.

G. Rejections under 35 U.S.C. 102(b) under US 6,180,029.

Claims 16-35 and 38-40 were rejected under 35 U.S.C. 102(b) as being anticipated by the Hampden-Smith patent ('029). This rejection is respectfully traversed.

Hampden-Smith patent has a filing date of Feb. 28, 1998 and claims priority to provisional applications of Feb. 24, 1997. The instant application claims a priority of Sept. 3, 1996 or a priority prior to the earliest claimed priority of the Hampden-Smith patent. Thus, it is respectfully submitted, that the claims as amended and the support for the claims found in the 1996 priority documents makes Hampden-Smith patent unavailable as prior art.

It is respectfully requested that given the amended claims, the rejection be withdrawn.

H. Rejections under 35 U.S.C. 102(b) under US 6,294,144.

Claims 16-35 and 38-40 were further rejected under 35 U.S.C. 102(b) as being anticipated by the Moy patent ('144). This rejection is respectfully traversed.

'144 teaches a process for producing carbon fibrils. '144 processes and other discussions do not teach or offer any motivations for combining elements into the lattice of a metal compound comprising compositions of matter such that a three or more element compound of matter results. Thus, '144 does not teach a key requirement of the claimed invention because it fails to teach at least the adding and producing elements of independent claims 16 and 26.


It is respectfully requested that given the amended claims, the rejection of claims 16-35 and 38-40 be withdrawn.

I. Conclusion.

In view of all of the above, claims 16-35 and 38-40 are believed to be allowable and the case in condition for allowance which action is respectfully requested.

A check is provided for the fees associated with the request for an extension of time and for filing a terminal disclaimer. However, should additional charges be required, please charge Deposit 50-1123.

Respectfully submitted,



March 31, 2006

Kent A. Lembke, Reg. No. 44,866
Hogan & Hartson LLP
One Tabor Center
1200 17th Street, Suite 1500
Denver, Colorado 80202
(720) 406-5378 Tel
(303) 899-7333 Fax